City of Bellevue

Transportation Commission Study Session

DATE: June 7, 2018

TO: Transportation Commission

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SUBJECT: Eastgate Transportation Study

DIRECTION REQUESTED

	Action
X	Discussion
X	Information

On March 26, 2018, the City Council approved a professional services contract with Concord Engineering to assist staff, the Transportation Commission and the Eastgate community to understand emerging issues and concerns related to vehicle congestion and to prepare project concepts to address congestion. Work on this Eastgate Transportation Study is funded through the Transportation levy that the voters of Bellevue approved in November of 2016.

At this study session, staff and the consultants at Concord Engineering will review and discuss the project scope of work and deliverables, and will provide a briefing on information gathered to establish a baseline and to support developing project concepts.

Immediately preceding this study session, a brief (30-minute) open house will provide the community with a look at the data gathered and to listen to their concerns regarding vehicle congestion and other mobility issues. Public comments – with a 3 minute limit each - may be offered during the study session agenda at item 3.

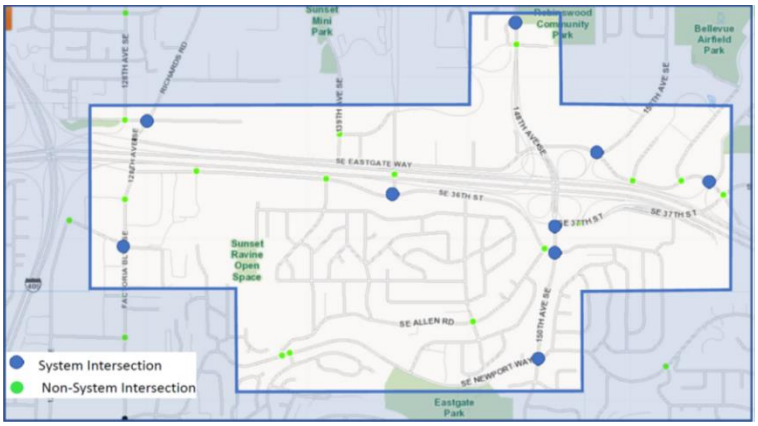
No action is requested of the Transportation Commission at this meeting.

EASTGATE TRANSPORTATION STUDY BACKGROUND

Council Direction

On November 28, 2016, then mayor John Stokes proposed to Council that a traffic study be performed in the Eastgate/I-90 Interchange area along 148th - 150th Avenues southeast to

identify near-term and mid-term improvements that could ease traffic congestion in this area. These improvements would be funded through the transportation levy or the Capital Investment Program (CIP). By unanimous vote, Council directed the Transportation Commission prepare a recommendation for projects intended to ease congestion.



Further, the mayor's proposal to Council suggested that a detailed traffic analysis be performed for the broader Eastgate/Factoria area, incorporating the findings from the WSDOT I-90 Peak Use Shoulder Lanes project and the traffic impacts associated with the Eastgate land use code changes. This Eastgate Transportation Study scope of work implements that detailed study.

150th Avenue SE Intersection Improvements Work from Early 2017

Short-term congestion reduction improvements are planned on the 148th - 150th Avenues southeast corridor with funding from the 2016 Neighborhood Safety, Connectivity and Congestion Levy. The Transportation Commission received analysis and project concepts from staff, together with comments from the community in early 2017, and recommended the following three intersection projects that are currently in design. Design concepts for these projects are described below and are shown in Attachment A.

- Improvement #1. Southbound to westbound right turn lane approximately 600 feet long on 150th Avenue SE at Newport Way, with a sidewalk on the west side of the street.
- Improvement #2. Two elements: a) on SE 37th Street at 150th Avenue southeast there would be dual eastbound to southbound right turn lanes from the I-90 off-ramp; and b) a full-block westbound to southbound turn pocket.
- Improvement #3. Continuous southbound right turn lane on 150th Avenue southeast between from 300 feet north of SE 37th Street to SE 38th Street and would extend the southbound left-turn pocket to 300-feet.

Status Report: The design engineers are currently developing 60% design plans for these projects. This work should be complete by the end of June. A contract supplement has been prepared, so resources are available to proceed on Project #1 (150th Ave SE at SE Newport Way) to 100% design - this is expected to be complete in February 2019. Projects #2 and #3 will be held for now at 60% design pending evaluation of the I-90 interchange operation, see the description of the I-90/Eastgate to SR 900 corridor improvements below. No construction funding is secured, but efforts in this regard are ongoing.

CURRENT MOBILITY INITIATIVES FOR THE EASTGATE AREA

Even as the Eastgate Transportation Study gets underway, Bellevue is working to improve mobility, and is collaborating with King County Metro on new transportation services at the Eastgate Park & Ride, and with the Washington state Department of Transportation (WSDOT) to increase the capacity and maximize the efficiency of I-90. These efforts include:

- **Eastgate Mobility Hub:** Bellevue and King County Metro are partnering on a plan to integrate new transportation services and technologies at the Eastgate Park & Ride. The idea is to transform the facility from a primarily car-to-bus transfer point into a mobility hub that offers a range of "first/last mile" options. Examples could include flexible and on-demand electric vanpool services; autonomous shuttles; and parking stall detection systems that alert drivers using an app to available parking. Bike share is likely to also be available.
- **Levy-funded projects in the Eastgate area**: As noted above, the 2016, voter-approved Neighborhood Safety, Connectivity and Congestion Levy is funding projects intended to reduce congestion in and between neighborhoods. They include design work for improvements on 150th Avenue Southeast at the I-90 interchange, and on 150th at Newport Way and at Southeast 37th Street. Also, new bicycle lanes will be added this year at several locations in the Eastgate area. More information: https://transportation.bellevuewa.gov/projects/transportation-levy-projects.
- **I-90/Eastgate to SR 900 corridor improvements**: WSDOT is finalizing plans to add an auxiliary lane between the freeway interchanges at Eastgate and West Lake Sammamish Parkway by widening the shoulder and re-striping the roadway. This would increase vehicle capacity in both directions, 24/7, with the intent to ease peak period congestion. Construction, which also will include new noise walls along the route, is scheduled to begin in 2019 and finish in 2020. More information is available at: https://www.wsdot.wa.gov/Projects/I90/PeakUseShoulderLane/default.htm.
- **In Motion trip reduction program**: Since 2004, King County Metro has worked with 40 neighborhoods to encourage residents to use sustainable travel modes and save money, help the environment and be more active. The program is offered in South Bellevue this summer. In Motion provides information, and offers prompts and incentives. An In Motion outreach ambassador will contact residents to share information about transportation options, such as taking the bus, carpooling, biking, and walking. More information and sign up are at: https://www.kingcounty.gov/depts/transportation/metro/programs-projects/transit-education-outreach/in-motion.aspx.
- **Bus route roadway upgrades**: This summer King County Metro will make some roadway changes along the Frequent Transit Network Route 245 to improve service and reliability. On 148th Avenue Southeast, approaching I-90, modifications will allow buses to drive on the

shoulder; at 142nd Avenue Southeast and Southeast 36th Street the work will improve the intersection and add new, more accessible bus stops.

EASTGATE TRANSPORTATION STUDY SCOPE OF WORK AND DELIVERABLES

Staff and consultants involved in the Eastgate Transportation Study will assemble and evaluate existing conditions, conduct a transportation analysis, develop a multimodal transportation plan and prepare project concept designs for investments intended primarily to reduce vehicle congestion in the Eastgate/Factoria area while considering and accommodating all modes. The map in the Background section above defines the approximate boundaries of the study area – some arterial corridors may extend a little as needed for evaluation.

This study will provide an objective and comprehensive technical analysis of existing and future mobility challenges for all modes. Based on objective analysis, this study will deliver a suite of projects that are calibrated and prioritized for short-term (2024) and long-term (2035) congestion reduction for vehicles, considering sustainability, access/connections and safety for users of all modes. Early emphasis and focus will be on the Factoria area in consideration of its status as a large employment and retail center (MMLOS defines this area as an Activity Center) and as the focus of current development proposals.

The analysis will be based on Complete Streets policy and Multimodal Level of Service (MMLOS) standards and guidelines suggesting a corridor approach to mobility is appropriate. This study will identify projects intended to reduce vehicle congestion and will consider all mobility options for all trip purposes. Standard vehicle level of service metrics will be applied to document and analyze congestion and to prepare project recommendations. Congestion reduction projects will be considered together with an analysis of mobility standards and guidelines for transit, pedestrian and bicycle modes.

Travel demand modeling will be employed, considering land use forecasts and a firm set of transportation projects for 2024, and reasonably foreseeable transportation network projects for 2035. Traffic operational modeling will examine the effectiveness of potential congestion reduction project concepts relative to a baseline (no action) condition. If it is deemed appropriate for certain intersections, operational modeling could include testing of potential roundabout solutions.

Project evaluation criteria will be developed that are consistent with city policies included in the Transportation Element of the Comprehensive Plan, Eastgate Land Use and Transportation Plan, Transit Master Plan, Pedestrian and Bicycle Transportation Plan, and Multimodal Level of Service metrics, standards and guidelines. A benefit and cost analysis may be employed to consider similar components to the recent analysis of the Bellevue Way HOV Lane project (Spring 2018) and the 150th Ave SE corridor (Winter 2017).

In the end, the Eastgate Transportation Study will deliver a report to the Transportation Commission that documents all the project concepts considered, and recommends project

priorities for congestion reduction in 2024 and 2035. This report will include documentation of planning level cost estimates and potential implementation issues for infrastructure projects, as well as an analysis of the effect of vehicle commute trip reduction programs and applied future technologies.

Public Engagement

The Transportation Commission will be the advisory body for the Eastgate Transportation Study and will ultimately prepare a final report that documents technical analysis, public engagement and project recommendations. The Commission will host several study sessions and one or more public open houses such as the one scheduled on June 14, 2018 to discuss the transportation analysis and project concepts to address congestion reduction, and to invite public comment. Study sessions and public open houses will be integrated with regularly scheduled Transportation Commission meetings as opposed to stand-alone events. One or more of the open houses and Transportation Commission meetings will be held in the Eastgate area.

EASTGATE TRANSPORTATION DATA – EXISTING CONDITIONS AND TRENDS

The consultant team and staff have been accumulating data that will provide a quantitative basis for analysis of existing and future transportation conditions and to help inform the location and type of project concepts. MMLOS metrics for each mode are fundamental to the analysis, coupled with such relevant supplemental data as traffic volume, collisions, transit ridership, etc. An important component of data collection is to cast backward to gather data to establish trends that may be considered in projections. Historical data exists most completely for average annual weekday vehicle volume, and we are gathering data for other modes as well.

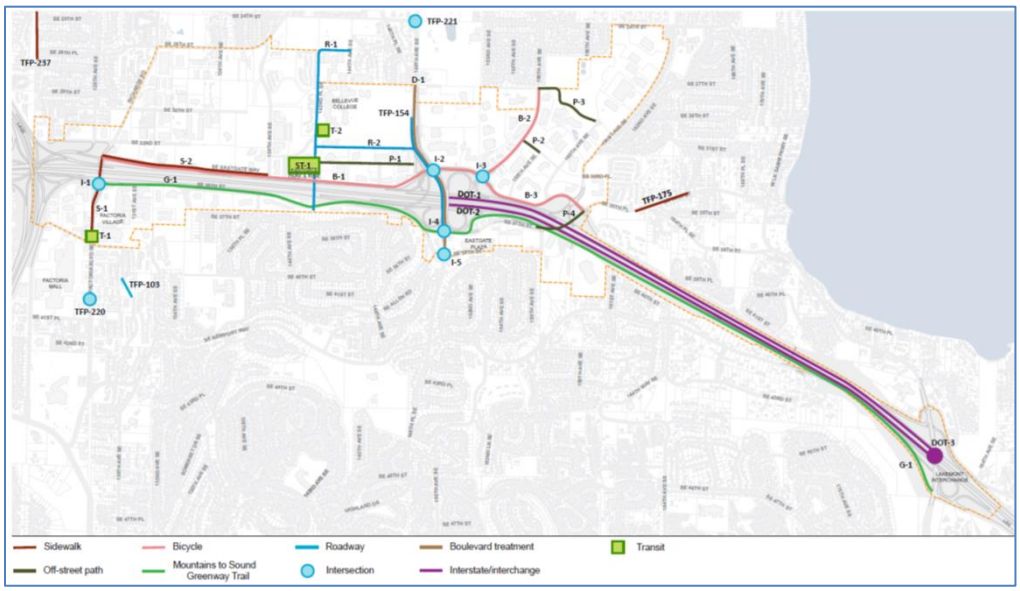
Presentation materials to be available at the June 14, 2018 Study Session will demonstrate the breadth of information available – and may also show where data is lacking. Some examples of the types of data available are described below:

- Vehicles: Average Daily Weekday Traffic, Intersection LOS, Corridor Travel Speed
- Transit: Ridership, Transit Travel Speed, Park and Ride Occupancy
- Pedestrians: Arterial system completeness – per MMLOS
- Bicycles: Arterial system completeness – per MMLOS
- Safety: Collisions that result in injuries

WHAT WE HAVE LEARNED

Eastgate/Factoria, as part of the central Puget Sound region, is affected by regional growth in housing and employment. As documented in land use plans and forecasts, this area is also anticipated to accommodate growth. Planning documents such as the Factoria Area Transportation Study (2005), the Eastgate/I-90 Land Use and Transportation Study (2012), and

the accompanying Transportation Strategies Report (2012), the Eastgate Comprehensive Plan Amendments (2015), and the recent Eastgate Land Use Code Amendments (2017) provide a glimpse into the future of both land use and transportation. Transportation projects identified in prior work are shown in the graphic below. Some of these are in design and implementation is planned. Others will be considered and evaluated in the current work, and these projects may be reiterated, modified or discarded in the end.



With regional and local growth continuing, our work in this study can focus on minimizing the adverse effects on mobility. Land use is not a variable that we can manipulate through this study, so the focus is on the transportation system. We know that simply expanding vehicle capacity is not a long-term or comprehensive solution to congestion. However, strategic investments may be identified to provide short-term congestion relief in the context of a longer-term and multimodal approach.

The transportation system in Factoria/Eastgate is fragile. A collision, a snowstorm, a Seahawks game, or even a little rain can dramatically increase vehicle travel time, and that includes transit. An expanded, redundant and multimodal transportation system – both local and regional - coupled with demand management and freeway tolling strategies will all be needed to accommodate the anticipated growth, and to provide accessible, dependable and equitable mobility.

NEXT STEPS

The project timeline for this study is approximately one year from the notice to proceed that was issued to the consultants in late March 2018. The Transportation Commission and the Eastgate/Factoria community will view modeling analysis and preliminary project concepts in the Fall of 2018. At Transportation Commission study sessions, many of the details of the

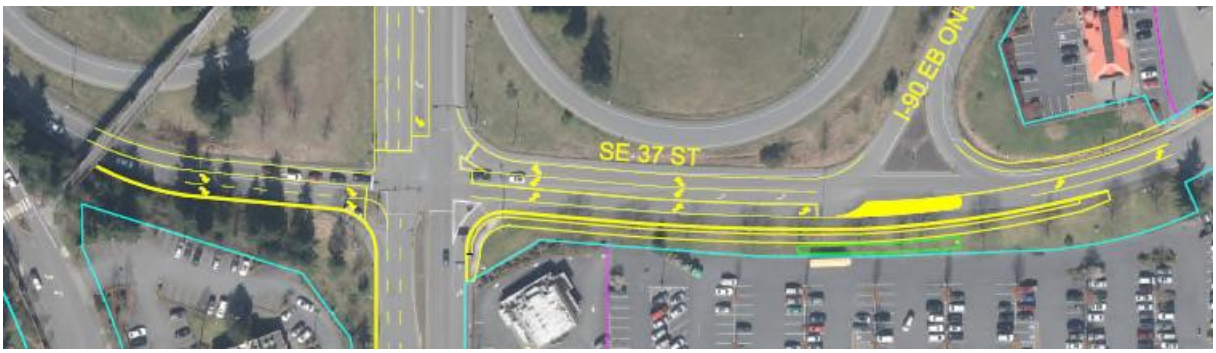
modeling assumptions and analysis will be summarized. Commissioners may request off-line briefings with staff and the consultants to learn details.

Following review and refinement, a draft final report and recommendation will be prepared for Commission review in the Winter of 2019 review and a final report will be issued in the Spring of 2019. A transmittal to the City Council will occur thereafter, and direction will be provided.

ATTACHMENT A

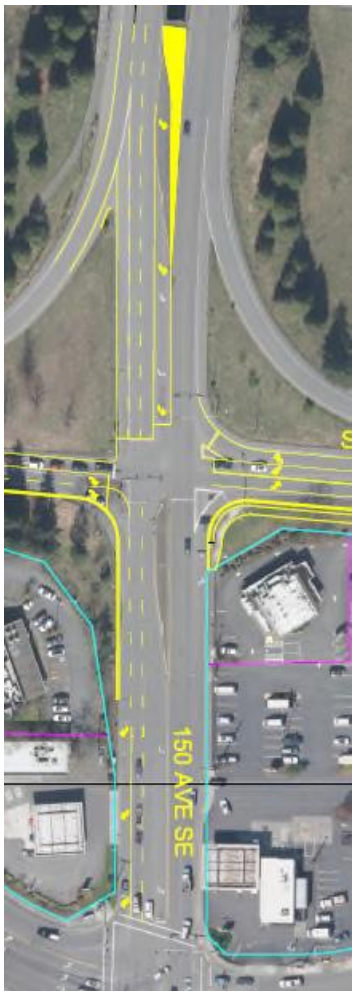
Improvement 1: 150th Ave SE at Newport Way

- Construct 600' southbound right turn pocket with new sidewalk
- SB Thru/SB RT Delay Change: 108/101 to 25/14 sec/veh
- Cost: $2.6M



Improvement 2: East-West at SE 37th St

- Construct dual EB right turn lanes.
- Full block left turn pockets on SE 37th St
- EB Thru/EB RT Delay Change: 85/134 to 73/50 sec/veh (with Improvement 1)
- Cost: $2.8M (includes Improv. 3)



Improvement 3: SB Right Turn and LT Lane Extensions

- Construct right turn drop lane at SE 38th St from 300ft north of SE 37th St
- Extend SB left turn lane at SE 37th St
- SE 37th St Intersection delay reduction from 53 to 36 sec/veh (with Improvements 1+2)
- Cost: $2.8M (includes Improvement 2)